

Work Order ID 84917

84917

Page 1

May-29-12 1:09:11 PM

Item ID: D209-669-014

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Skidtube RH

Stop *NS2*

Start Date: 29/05/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 16/07/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/05/30 Tooling:

Date:

Run Start *NR1*

QC:

Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D209-669-014	Rev B								
DSI 9450	Rev A								
100		0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Document Control	Photocopy bluefile & type labels per PPP D209-669-014 CHG002								
110	Pick Kit	0.00							
110	Memo	0.00							
Packaging									
Packaging									

B84894

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 84917

84917

Page 2

May-29-12 1:09:11 PM

Item ID: D209-669-014

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube RH

Stop ***NS2***

Start Date: 29/05/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 16/07/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

130

0.00

130

Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD209-669-014
Location: _____

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

DAS
16
8-83

17/7/23

12/7/23 (1)

MLJ 12/07/23

MLJ 12/07/23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May-29-12 1:09:15 PM

Page 1

Work Order ID: 84917

84917

Parent Item: D209-669-014

D209-669-014

Parent Item Name: Skidtube RH

Start Date: 29/05/2012

Required Date: 16/07/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: New IPP 08.02.13 new issue EC, verified by:DD
IPP Rev:B 08-05-20 chg QTY of D2570 DD verified by:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D209-669-043

Manufactured No

110

Each

2.0000

1

1

D209-669-043

Replacement Skidtube

**

84894

[Signature]

Location

Loc Qty

Loc Code

Mezz

2

39205

1

39206

1

D2917-2

Manufactured No

110

Each

1.0000

2

2

D2917-2

Saddle RH

**

B84939

[Signature]

Location

Loc Qty

Loc Code

ST424

1

52129

1

D2918-2

Manufactured No

110

Each

1.0000

2

2

D2918-2

Saddle RH

**

B84940

[Signature]

Location

Loc Qty

Loc Code

ST424

1

52133

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May-29-12 1:09:15 PM

Page 2

Work Order ID: 84917

84917

Parent Item: D209-669-014

D209-669-014

Parent Item Name: Skidtube RH

Start Date: 29/05/2012

Required Date: 16/07/2012

Start Qty: 1.00

Required Qty: 1.00

AN4-51A

Purchased

No

110

Each

302.0000

8

8

**

sl

AN4-51A

Bolt

Location

Loc Qty

Loc Code

362

200

121181

200

8

ST361

102

119798

30

121584

72

D2570

Manufactured

No

110

Each

711.0000

24

24

**

sl

D2570

Bushing

Location

Loc Qty

Loc Code

ST011

711

72960

41

78586

9

79493

12

81956

24

81957

400

82874

225

24

MS21042L4

Purchased

No

110

Each

4,095.000

24

24

**

sl 12/7/13

MS21042L4

Nut

Location

Loc Qty

Loc Code

ST300

4095

119075

125

121011

713

121444

2957

121652

300

24

May-29-12 1:09:15 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May-29-12 1:09:15 PM

Page 3

Work Order ID: 84917

84917

Parent Item: D209-669-014

D209-669-014

Parent Item Name: Skidtube RH

Start Date: 29/05/2012

Required Date: 16/07/2012

Start Qty: 1.00

Required Qty: 1.00

AN5-36A

Purchased

No

110

Each

184.0000

4

4

AN5-36A

Bolt

**

Location

Loc Qty

Loc Code

340

134

121181

34

121652

100

ST340

50

121708

50

AN960JD516

NAS1149D0563J

Purchased

No

110

Each

0.0000

8

8

AN960JD516

Washer

**

MS21042L5

Purchased

No

110

Each

1,447.000

4

4

MS21042L5

Nut

**

Location

Loc Qty

Loc Code

300

500

121652

500

ST300

947

108827

8

116105

5

116548

43

117611

18

119109

865

17651

8

AN4-7A

Purchased

No

110

Each

124.0000

16

16

AN4-7A

Bolt

**

Location

Loc Qty

Loc Code

ST356

124

117514

24

120770

100

May-29-12 1:09:15 PM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May-29-12 1:09:15 PM

Page 4

Work Order ID: 84917

84917

Parent Item: D209-669-014

D209-669-014

Parent Item Name: Skidtube RH

Start Date: 29/05/2012

Required Date: 16/07/2012

Start Qty: 1.00

Required Qty: 1.00

AN960JD416

NAS1149D0463J

Purchased

No

110

Each

30.0000

32

32

AN960JD416

Washer

**

11/21/12

Location

Loc Qty

Loc Code

ST351

30

116289

10

119097

20

D2929

Manufactured

No

110

Each

86.0000

2

2

D2929

Spacer

**

Location

Loc Qty

Loc Code

ST021

86

53564

86

D2930

Manufactured

No

110

Each

102.0000

2

2

D2930

Spacer

**

Location

Loc Qty

Loc Code

ST021

102

53563

102

D3405-041

Manufactured

No

110

Each

6.0000

1

1

D3405-041

Lug Assembly

**

85098

Location

Loc Qty

Loc Code

ST478

6

62227

2

77000

2

82031

1

82032

1

May-29-12 1:09:15 PM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May-29-12 1:09:15 PM

Page 5

Work Order ID: 84917

84917

Parent Item: D209-669-014

D209-669-014

Parent Item Name: Skidtube RH

Start Date: 29/05/2012

Required Date: 16/07/2012

Start Qty: 1.00

Required Qty: 1.00

AN4C47A

Purchased

No

110

Each

48.0000

4

4

**

M/222045

AN4C47A

Bolt

Location

Loc Qty

Loc Code

ST361

48

118451

6

119798

2

121009

22

121585

18

MS21043-4

Purchased

No

110

Each

1,346.000

5

5

**

rd

MS21043-4

Nut

Location

Loc Qty

Loc Code

FG

40

104603

40

ST301

1306

119546

147

121162

659

121652

500

D3405-043

Manufactured

No

110

Each

2.0000

1

1

**

284941 12/7/1950

D3405-043

Lug Assembly

Location

Loc Qty

Loc Code

ST478

2

82038

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

May-29-12 1:09:15 PM

Page 6

Work Order ID: 84917

84917

Parent Item: D209-669-014

D209-669-014

Parent Item Name: Skidtube RH

Start Date: 29/05/2012

Required Date: 16/07/2012

Start Qty: 1.00

Required Qty: 1.00

D3407-041

Manufactured No

110

Each

27.0000

1

1

**

86672

D3407-041

Tow Ring

Location

Loc Qty

Loc Code

ST463

27

82067

6

82068

19

82108

2

D3456-1

Manufactured No

110

Each

156.0000

1

1

**

D3456-1

Washer

Location

Loc Qty

Loc Code

FG

7

25701

7

ST044

149

80252

1

81876

48

83584

100

D3417-5

Manufactured No

110

Each

78.0000

2

2

**

D3417-5

Washer

Location

Loc Qty

Loc Code

ST042

78

78842

28

83318

50

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D209-669 REV. B

INSTRUCTIONS:

1) FOR D209-669-011/-012/-013/-014 SKID TUBES @ CHANGE 003 AND SUBSEQUENT, MODIFY THE FOLLOWING:

- a) REPLACE THE D2968-041 TOW RING WITH THE D3407-041 TOW RING ASSEMBLY.
- b) REPLACE THE D2736-1 AND D2736-3 GHW LUGS WITH THE D3405-041 AND D3405-043 LUG ASSEMBLIES.
- c) AMEND THE PARTS LIST IN SECTION 5.0 OF INSTALLATION INSTRUCTIONS IIN-D209-669 REV. B AS SHOWN ON PAGE 2 OF THIS DSI.

NOTE: ALL INSTALLATION FASTENERS FOR THE ABOVE CHANGES HAVE BEEN UPDATED. SEE THE AMENDED PARTS LIST ON PAGE 2 FOR DETAILS.

12/05/30
NO. 24913 ML5
WORK ORDER
WITHOUT NOTICE
SUBJECT TO AMENDMENT
UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY

A	NEW ISSUE	AJS	09.02.24
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9450	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SKIDTUBE INSTALLATIONS	NTS
DATE	09.02.24	COPYRIGHT © 2009 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

5.0 PARTS LIST

ITEM	QTY -011	QTY -012	QTY -013	QTY -014	QTY -041	QTY -043	PART NUMBER	DESCRIPTION
	X						D209-669-011	SKIDTUBE INSTALLATION, LH (AH-1W/J)
		X					D209-669-012	SKIDTUBE INSTALLATION, RH (AH-1W/J)
			X				D209-669-013	SKIDTUBE INSTALLATION, LH (AH-1P/F/S)
				X			D209-669-014	SKIDTUBE INSTALLATION, RH (AH-1P/F/S)
	1	1			X		D209-669-041	REPLACEMENT SKIDTUBE (AH-1W/J)
			1	1		X	D209-669-043	REPLACEMENT SKIDTUBE (AH-1P/F/S)

IS:

50	4	4	1	1			D3405-041	LUG ASSEMBLY
51	8	8	4	4			AN4C47A	BOLT
52	16	16	8	8			D2570	BUSHING
53	8	8	4	4			MS21043-4	NUT
54			1	1			D3405-043	LUG ASSEMBLY
60	1	1	1	1			D3407-041	TOW RING ASSEMBLY
61	1	1	1	1			D3456-1	WASHER
62	1	1	1	1			MS21043-4	NUT
63	2	2	2	2			D3417-5	WASHER

WAS:

50	4	4	1	1			D2736-1	GHW LUG
51	8	8	4	4			AN4-46A	BOLT
52	16	16	8	8			D2570	BUSHING
53	8	8	4	4			MS21042L4	NUT (OR MS21042-4)
54			1	1			D2736-3	GHW LUG
60	1	1	1	1			D2968-041	TOW RING
61	1	1	1	1			AN970-4	WASHER
62	1	1	1	1			MS21042L4	NUT (OR MS21042-4)

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9450	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SKIDTUBE INSTALLATIONS	NTS
DATE	09.02.24	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE EXPRESS PERMISSION OF DART AEROSPACE LTD.	

21678

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

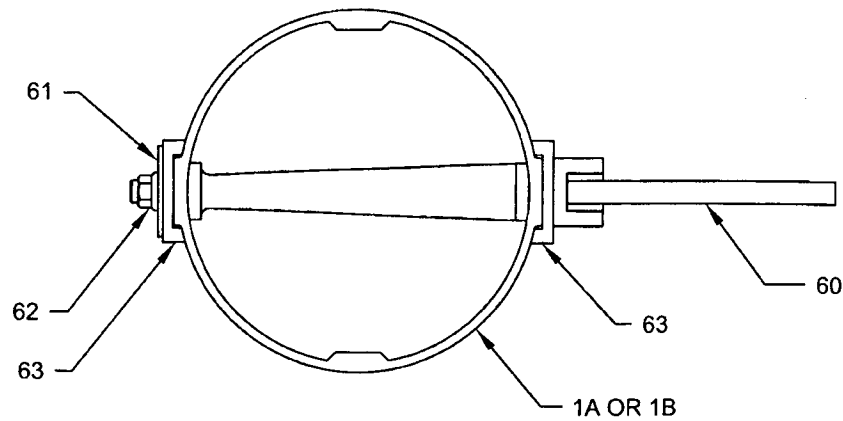
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

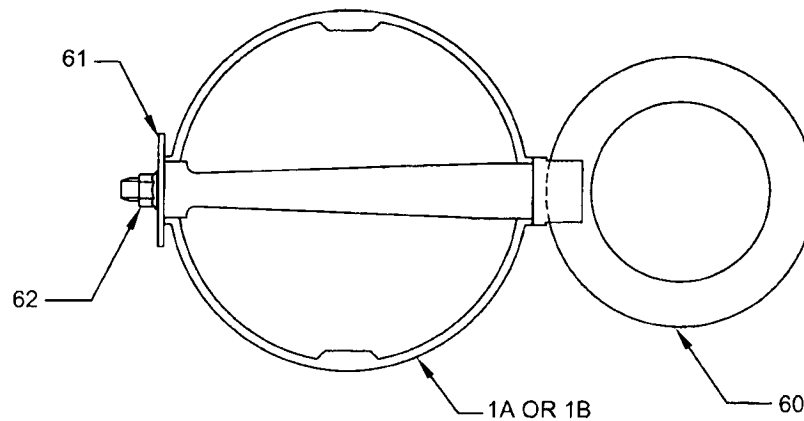
NOTE: Date & initial all entries

INSTALL TOW RING ASSEMBLY AS SHOWN BELOW (REFER TO SECTION F-F OF IIN-D209-669 REV. B.

IS:



WAS:



NO PICTORIAL CHANGE REQUIRED FOR GROUND HANDLING WHEEL LUG CHANGES.

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9450	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SKIDTUBE INSTALLATIONS	NTS
DATE	09.02.24	COPYRIGHT © 2009 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

24912

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries